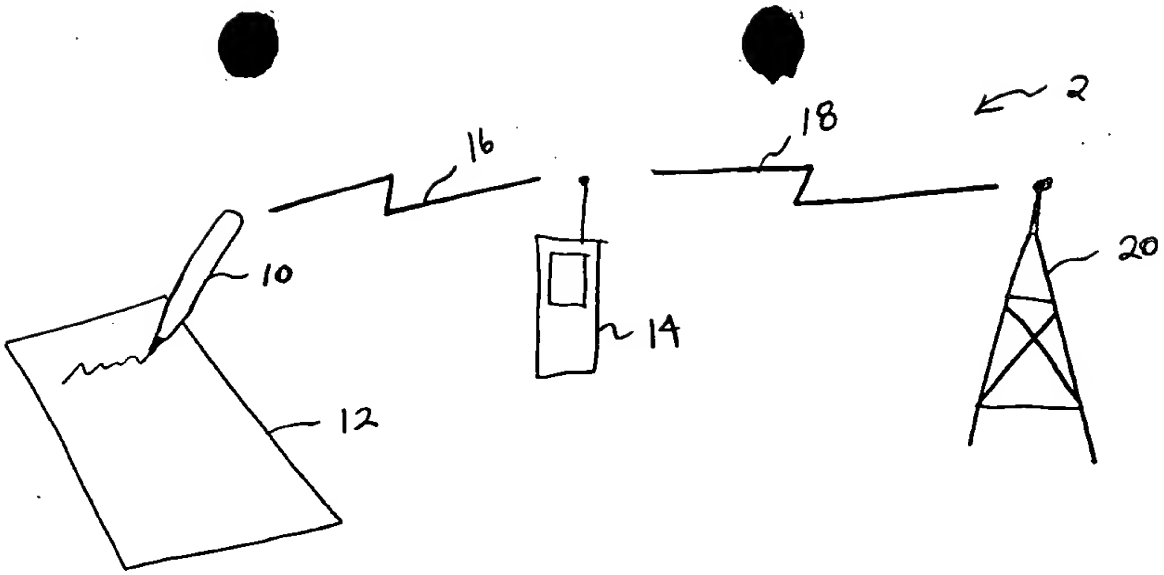

FIG. 1

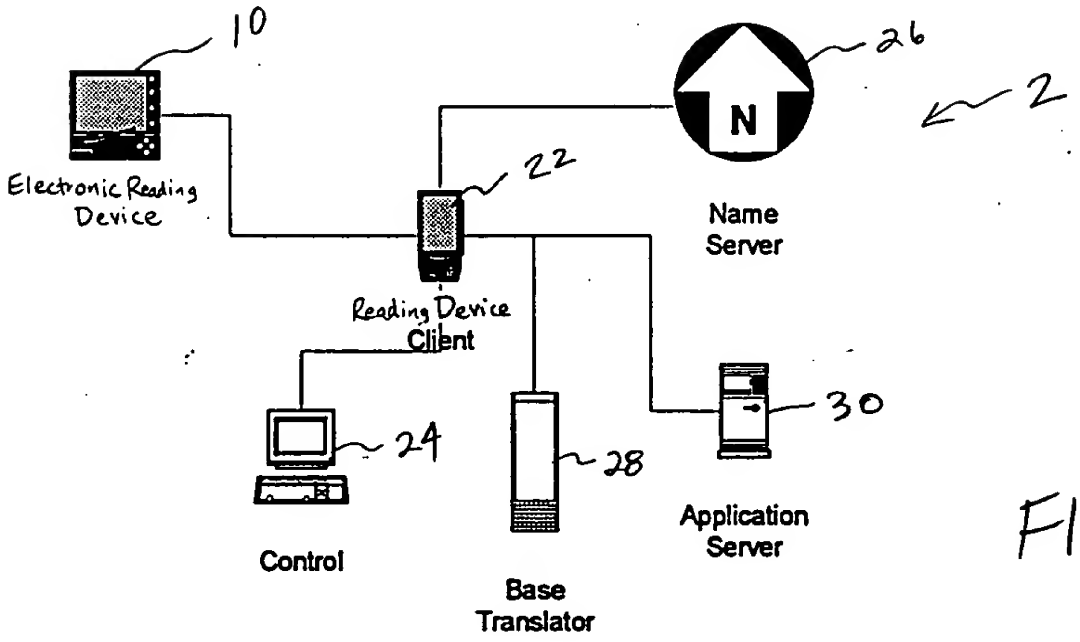

FIG. 2

09/703,450 - 11/03/00

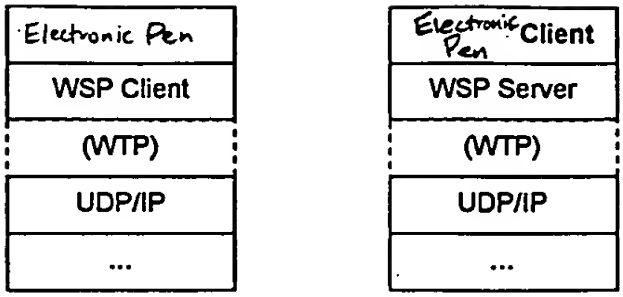

FIG. 3

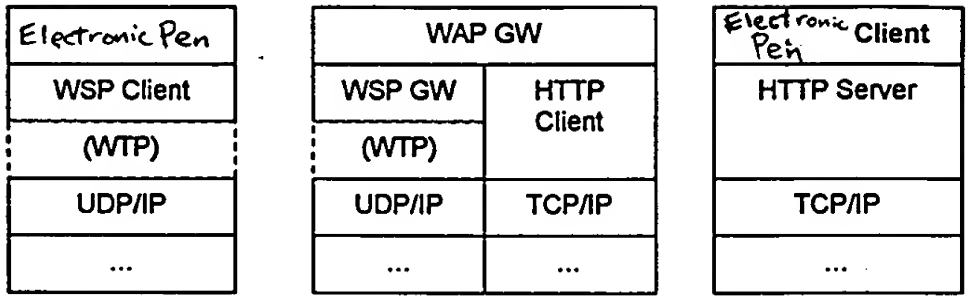

FIG. 4

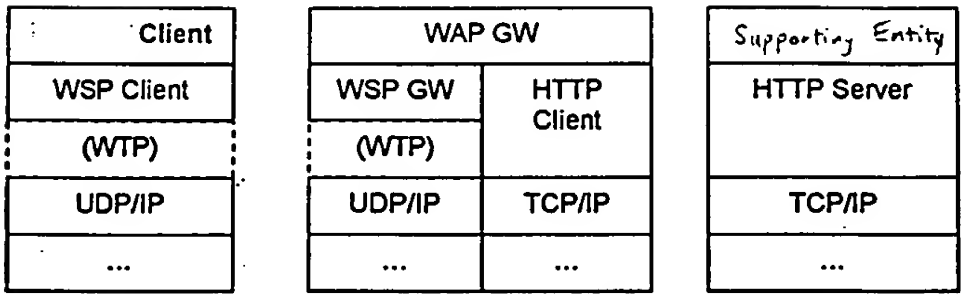

FIG. 5

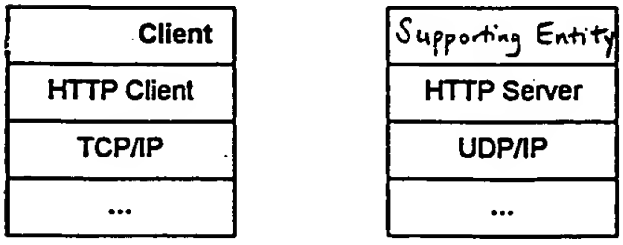

FIG. 6

09/30/2003 10:50:50

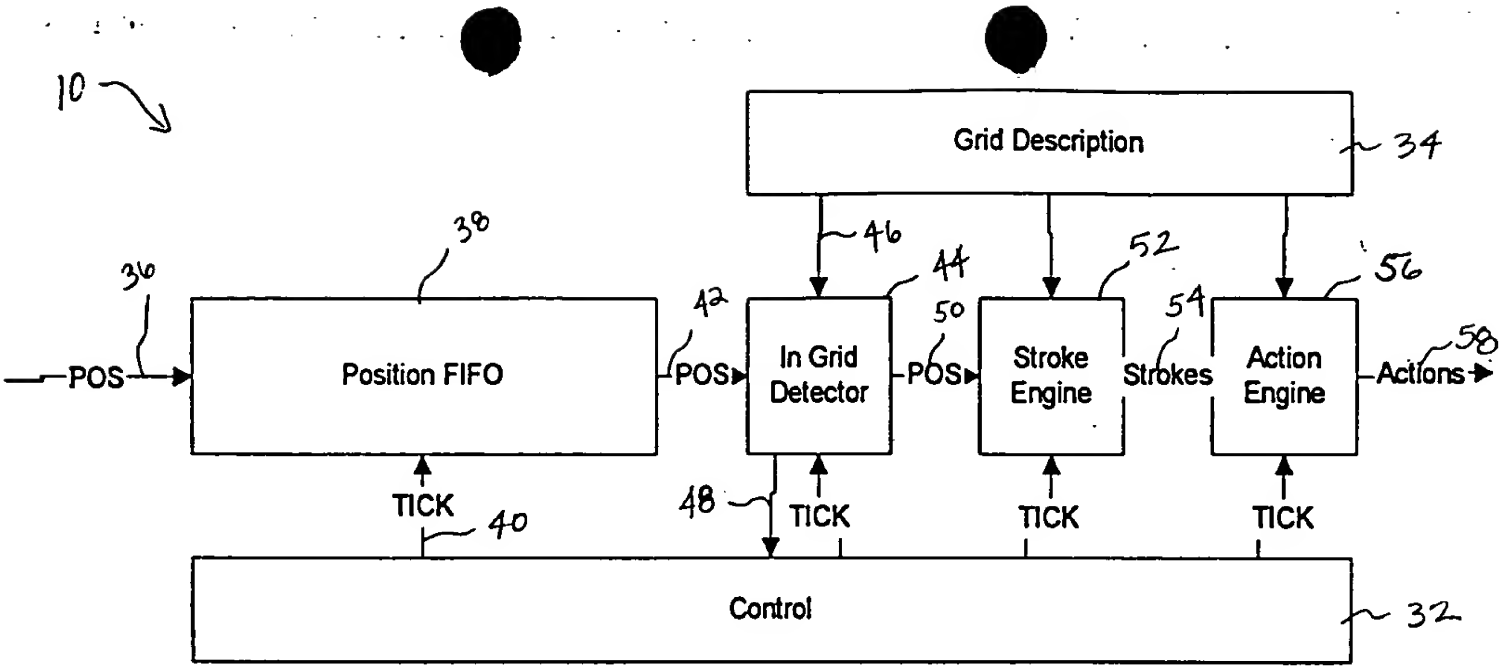
10
Grid Description
34
46
44
52
56
38
36
42
50
54
58
POS
Position FIFO
POS
In Grid Detector
POS
Stroke Engine
Strokes
Action Engine
Actions
TICK
40
48
TICK
TICK
TICK
Control
32

FIG. 7

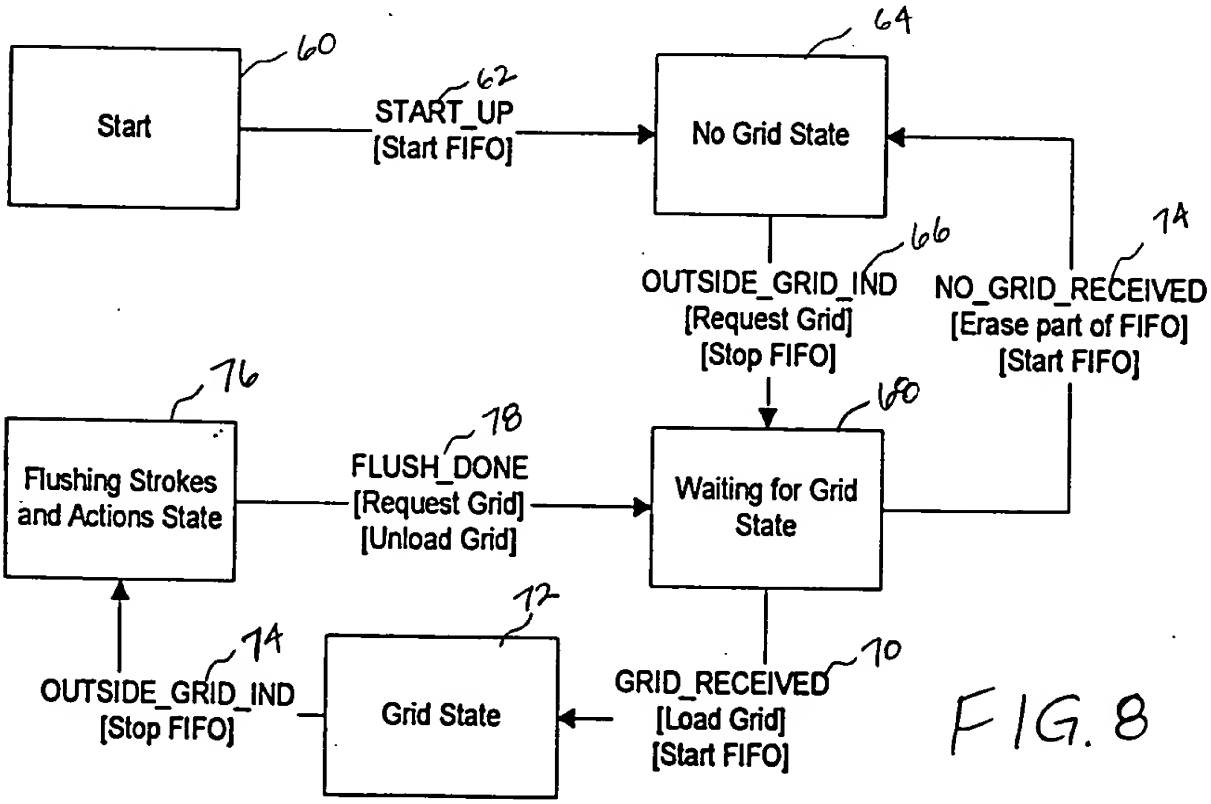
60
64
Start
62
START_UP
[Start FIFO]
No Grid State
66
74
OUTSIDE_GRID_IND
[Request Grid]
[Stop FIFO]
NO_GRID_RECEIVED
[Erase part of FIFO]
[Start FIFO]
76
78
80
Flushing Strokes and Actions State
FLUSH_DONE
[Request Grid]
[Unload Grid]
Waiting for Grid State
72
74
70
OUTSIDE_GRID_IND
[Stop FIFO]
Grid State
GRID_RECEIVED
[Load Grid]
[Start FIFO]

FIG. 8

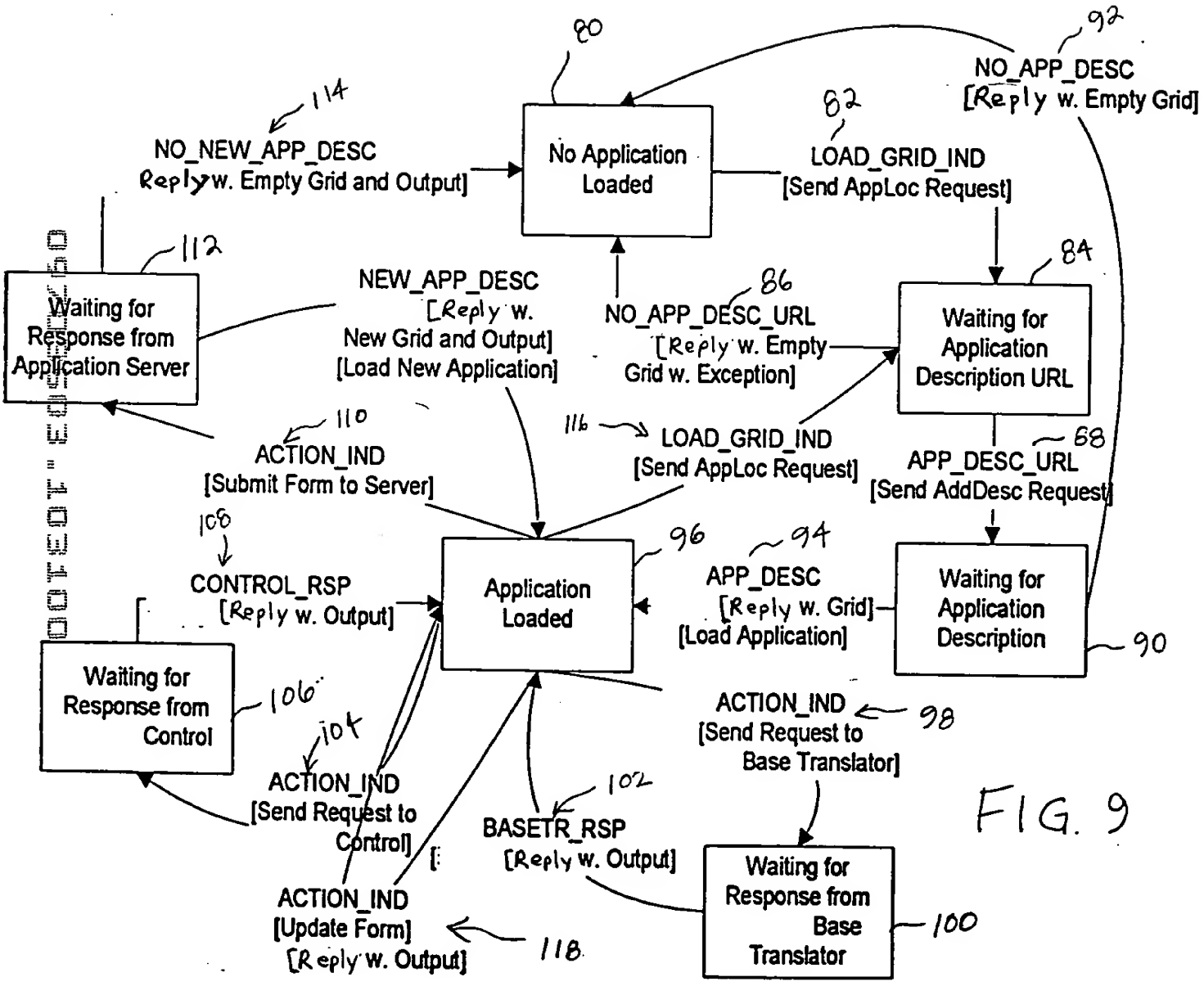
80
92
NO_APP_DESC
[Reply w. Empty Grid]
114
NO_NEW_APP_DESC
Reply w. Empty Grid and Output]
No Application Loaded
82
LOAD_GRID_IND
[Send AppLoc Request]
112
Waiting for Response from Application Server
NEW_APP_DESC
[Reply w. New Grid and Output]
[Load New Application]
86
NO_APP_DESC_URL
[Reply w. Empty Grid w. Exception]
84
Waiting for Application Description URL
110
ACTION_IND
[Submit Form to Server]
116
LOAD_GRID_IND
[Send AppLoc Request]
68
APP_DESC_URL
[Send AddDesc Request]
108
CONTROL_RSP
[Reply w. Output]
96
Application Loaded
94
APP_DESC
[Reply w. Grid]
[Load Application]
Waiting for Application Description
90
Waiting for Response from Control
106
104
ACTION_IND
[Send Request to Control]
ACTION_IND
[Send Request to Base Translator]
98
102
BASETR_RSP
[Reply w. Output]
Waiting for Response from Base Translator
100
ACTION_IND
[Update Form]
[Reply w. Output]
118

FIG. 9

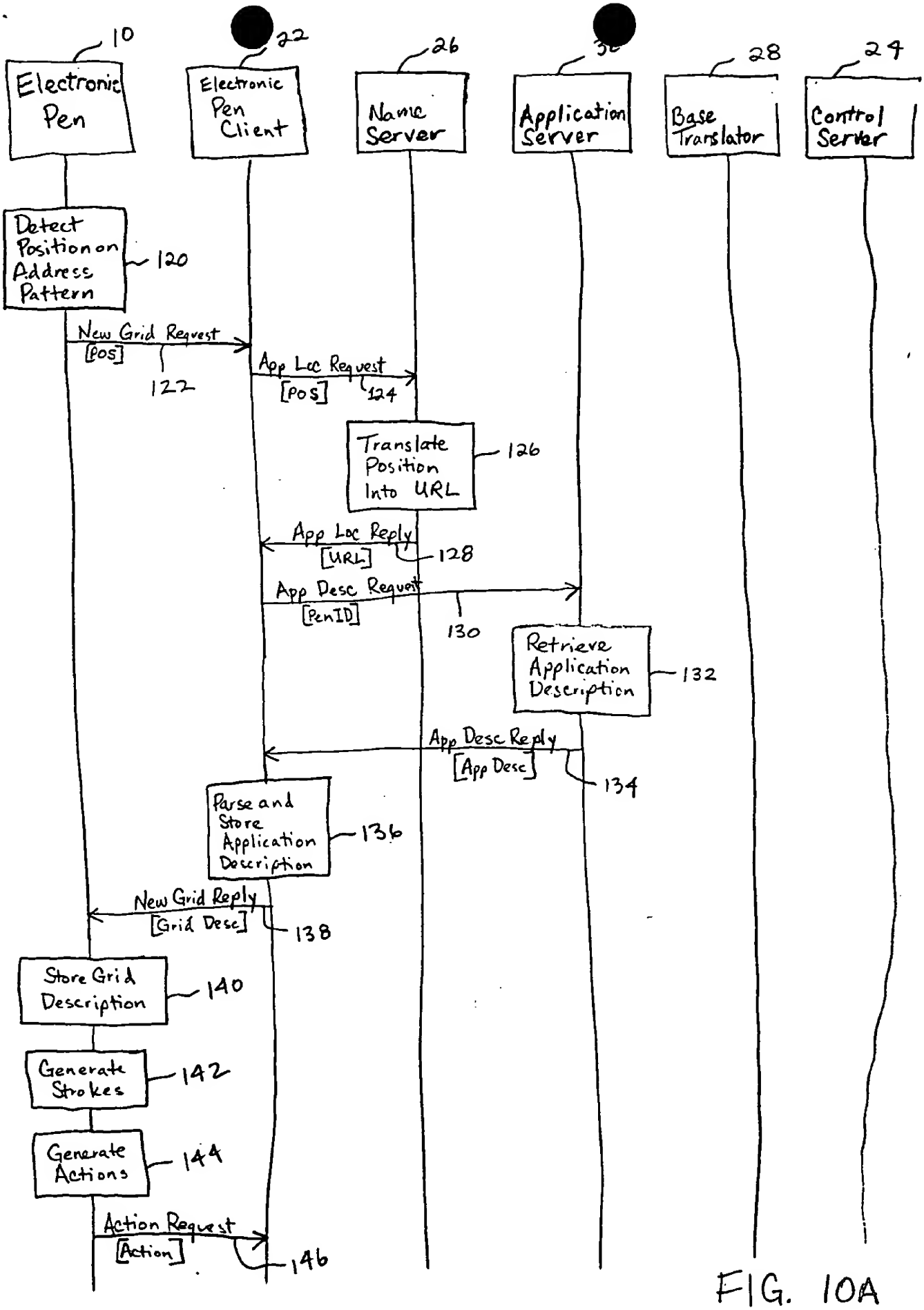
10
Electronic Pen
22
Electronic Pen Client
26
Name Server
30
Application Server
28
Base Translator
24
Control Server
Detect Position on Address Pattern
120
New Grid Request
[Pos]
122
App Loc Request
[Pos]
124
Translate Position Into URL
126
App Loc Reply
[URL]
128
App Desc Request
[PenID]
130
Retrieve Application Description
132
App Desc Reply
[App Desc]
134
Parse and Store Application Description
136
New Grid Reply
[Grid Desc]
138
Store Grid Description
140
Generate Strokes
142
Generate Actions
144
Action Request
[Action]
146

FIG. 10A

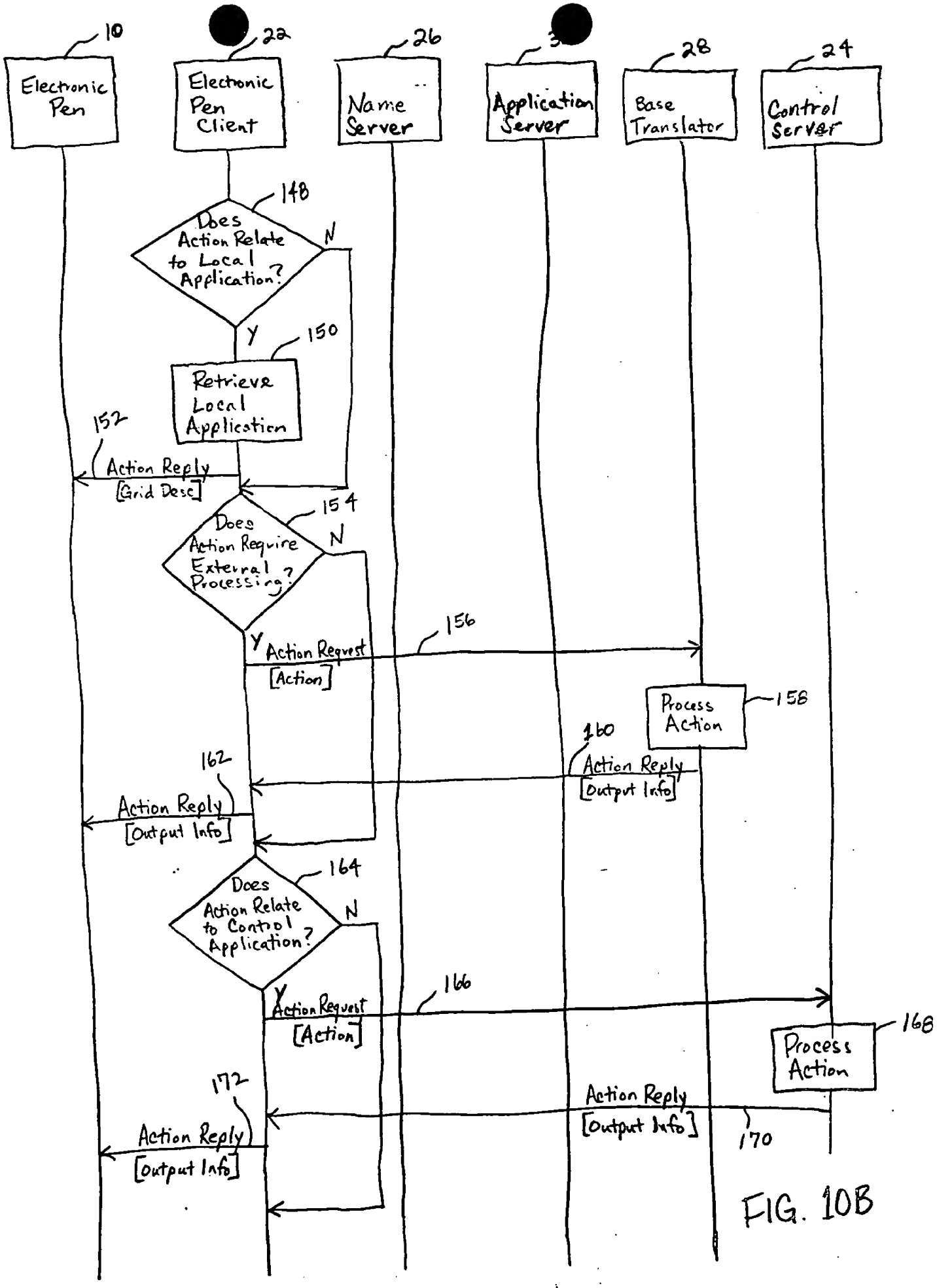

FIG. 10B

09TE0T-E0SE0450

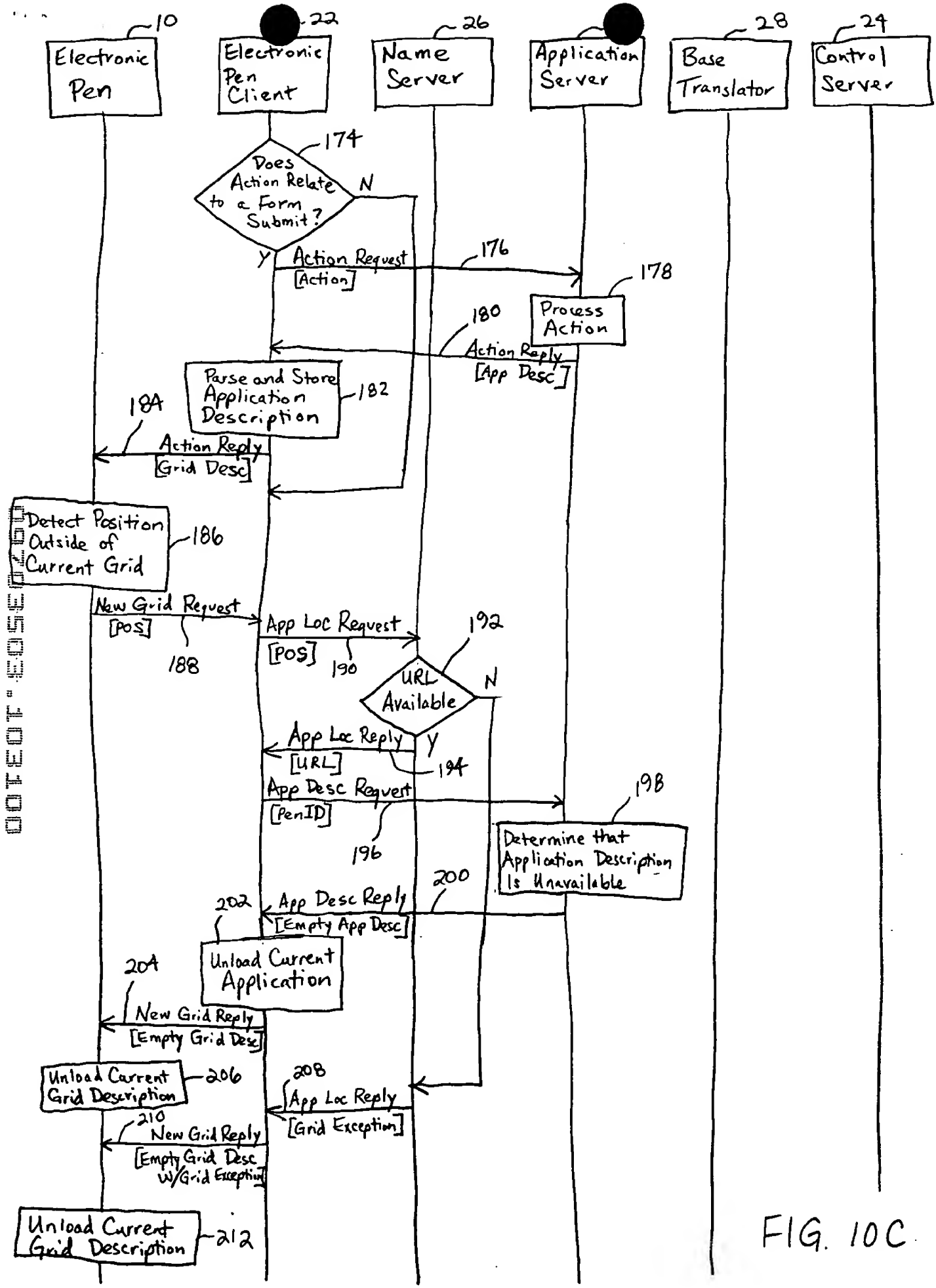
Electronic Pen
10
Electronic Pen Client
22
Name Server
26
Application Server
Base Translator
28
Control Server
29
174
Does Action Relate to a Form Submit?
N
Y
Action Request
[Action]
176
178
Process Action
180
Action Reply
[App Desc]
Parse and Store Application Description
182
184
Action Reply
[Grid Desc]
Detect Position Outside of Current Grid
186
New Grid Request
[POS]
188
App Loc Request
[POS]
190
192
URL Available
N
Y
App Loc Reply
[URL]
194
App Desc Request
[PenID]
196
198
Determine that Application Description Is Unavailable
200
App Desc Reply
[Empty App Desc]
202
Unload Current Application
204
New Grid Reply
[Empty Grid Desc]
Unload Current Grid Description
206
208
App Loc Reply
[Grid Exception]
210
New Grid Reply
[Empty Grid Desc W/Grid Exception]
Unload Current Grid Description
212

FIG. 10C

DOCKET: 5050-60

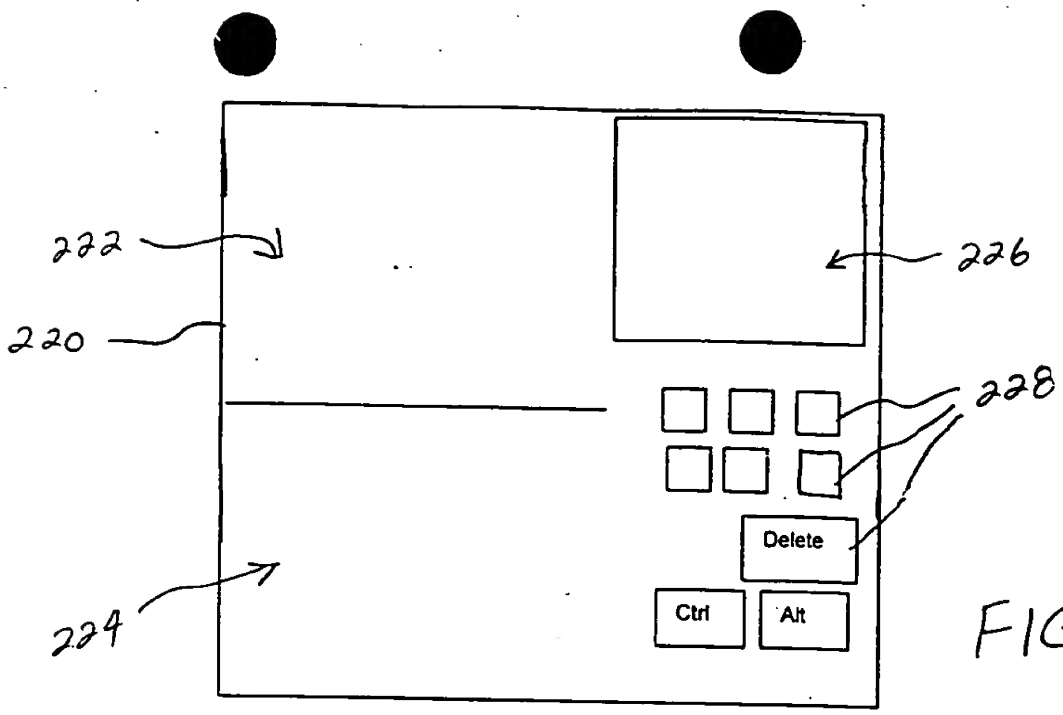

FIG. 11

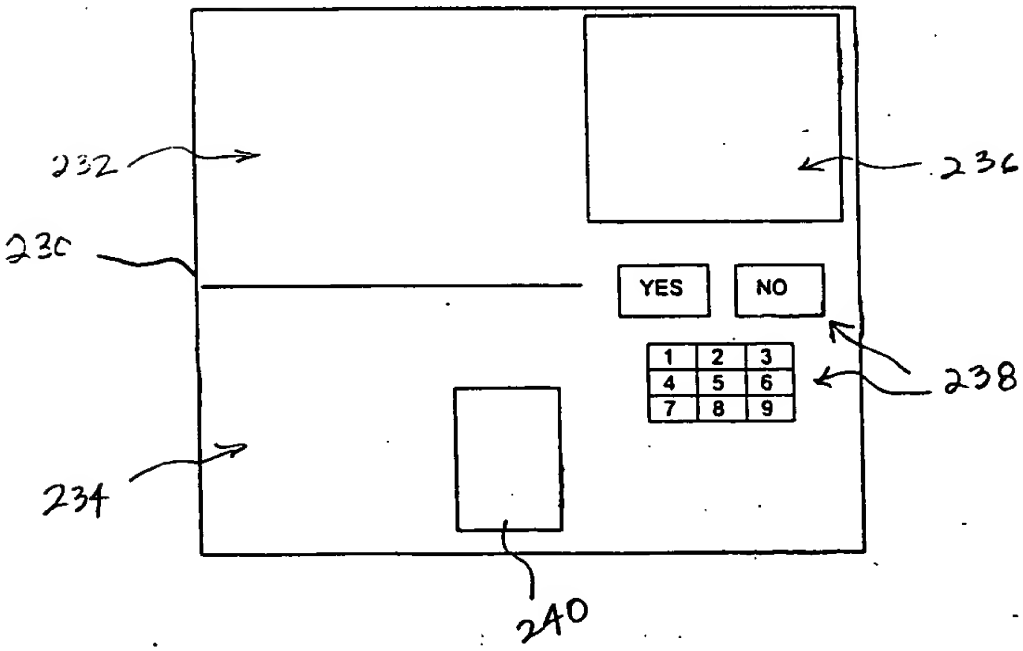

FIG. 12

00T6015 60560760

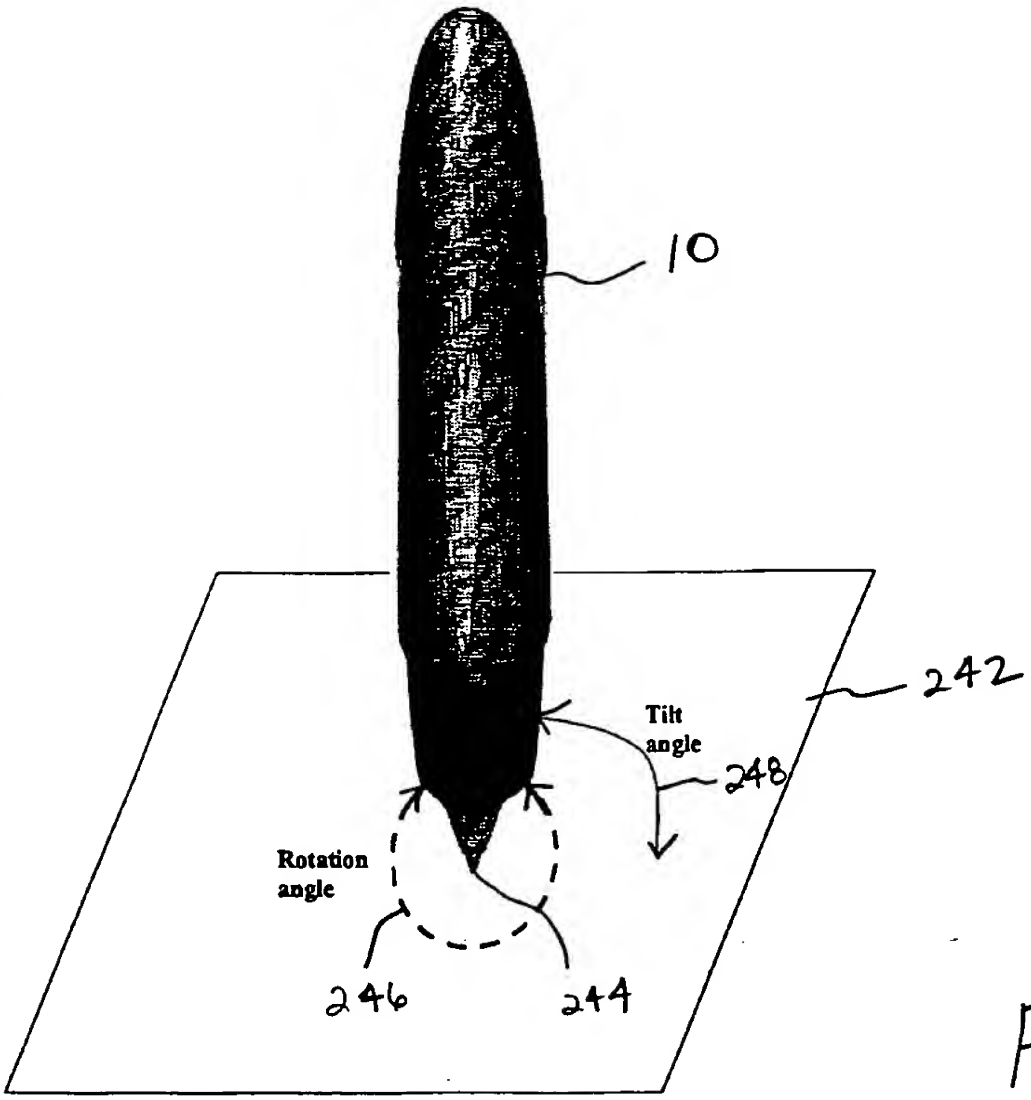

FIG. 13